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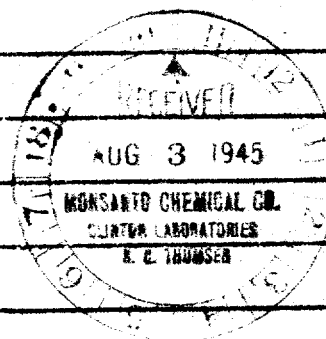
Those Eligible
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AttachedDate 8/2/45Subject Disposal of Soda Pulp OxychlorideCopy # 1 & 2 R. C. ThumserBy J. A. HayTo R. C. Thumser

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J. P. Sinclair 8/6/45

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Julian A. Hay
JULIAN A. HAY,
Captain, Corps of Engineers,
Assistant.

Quicker

GENERAL NOTE NUMBER

45-8-271

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Subject 3/31/45
TRANSFER AND DISPOSAL OF WASTES FROM SITE M

By _____

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To _____

Oswayon

Morgan

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Chief, Declassification Branch



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1. E. Z. Morgan
2. J. E. Puvogel
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3/31/45

E. Z. Morgan

Health-Physics

R. R. Coveyou

Health-Physics

TRANSFER AND DISPOSAL OF WASTES FROM SITE M.

Sunday, August 5, 1945, two trucks loaded with about 10 barrels each of wastes from Site M were received at the Plant. These wastes were highly contaminated with poison, just how highly is not known. The trucks were not permitted to enter the Plant area, but were held outside the fence until arrangements could be completed for burying the barrels of waste.

Monday, August 6, 1945 this was done. The barrels were swung over the fence into the trench located in the new burial ground. This trench is about 12' deep, and after the barrels were in place dirt was placed over them. After the arrival of another expected load, it is planned to place a concrete slab over the material to prevent the possibility of future burial operations exposing this material. All details of the process were carried out without untoward incident. Health-Physics monitoring of the process was continuous. Due to a gamma radiation level of ~200 mr/hr on the truck, 15 minute shifts only were allowed for workmen on this operation. Smear samples showed considerable contamination of the trucks up to 5000 c/m being collected on one smear. After we attempted decontamination by washing, Poppy still indicated levels of ~10 - 50 kilo-counts/minute. Further decontamination reduced this level to acceptable values before the trucks were released for further service.

The main Health-Physics problems involved in the operation are:

1. Avoidance of contamination of the Plant
2. Avoidance of contamination of the workers
3. Monitoring of direct radiation exposure
4. Emergency action in case of a dropped barrel
5. Decontamination of the trucks, workers and equipment

The somewhat unknown activity of the material leads one to the conclusion that (4), though only a remote possibility, would present the most serious possible hazard.

RRC

RRC/r

R. R. Coveyou

X

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Per Letter Instructions Q6-9-107 1613

AEC 1-23-57

M. Shairley

For: M. T. Egan, Supervisor

Laboratory Records Dept.
ORNL

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B-137

Date 9/10/45

Subject Second Transfer and Disposal of

Wastes from Site M

By R. A. Simons

To K. Z. Morgan

Copy #

W H Ray
2 E. L. Langer

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W H Ray 9-10-45

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9/10/45

K. Z. Morgan

Health-Physics

R. A. Simons

Health-Physics

SECOND TRANSFER AND DISPOSAL OF WASTES FROM SITE M.

Friday, August 31, 1945, two trucks carrying wastes and scrap equipment from Site M were surveyed outside the Plant area at the NE corner of the new burying ground. One truck was loaded with about 10 barrels of waste (highly contaminated with Potassium) and the other truck with scrap equipment. The hottest waste can was 220 mr/hr beta, and gamma at 3". Before unloading this truck the reading was 120 mr/hr on the driver's side of the truck at the rear wheel and 95 mr/hr above the other rear wheel. The hottest piece of scrap equipment on the other (black) truck was 8 mr/hr and the sides of this truck before unloading read <1 mr/hr. Before unloading, three of the four drivers of the truck were checked with a Poppy and Walkie-Talkie. There was no beta and gamma contamination on the men, but all shoes were contaminated with alpha up to 12,500 d/m. The clothes were contaminated up to 12,000 d/m. The fourth driver was contacted the next day and his clothes and shoes were found to be in about the same condition. The clothes and shoes were brought to the laundry and decontaminated.

Before unloading, alpha contamination ranging up to 60,000 d/m was found in the cab and on the running board of the waste truck and up to 16,000 d/m was found in the cab of the scrap equipment truck. No contamination was found on the tarpaulins covering the trucks or on the wheels. Fifteen minutes/man was allowed for unloading of the waste truck. No spills or mishaps occurred during the unloading of either of the trucks. The cargo was unloaded by means of a crane into an approximately 12 ft. deep hole at the NE corner of the burying ground and covered with dirt. The reading at the edge of the hole after burying was 4 mr/hr. The clothing and shoe covers of the maintenance men were buried in the same hole. The men were probed for beta, gamma and alpha contamination after completion of the job and were found to be uncontaminated.

The truck beds were contaminated with alpha up to 60,000 d/m, spots in the cabs ranged up to 15,000 d/m and the running boards ranged up to 60,000 d/m. No beta and gamma contamination was found. The first scrubbing and fire hosing did not appreciably decrease the contamination. The next scrubbing and fire hosing lasted two hours, and did do away with contamination in the cabs and on the running boards. However, spots on both truck beds and on the side boards ranged up to 15,000 d/m. It was then decided to paint over the contamination. The fire truck and hose were checked with Poppy and found to be uncontaminated. The clothing of the men who scrubbed and hosed the trucks was brought to the laundry for decontamination. The truck decontamination was done at the pond about 200' west of the clockhouse, outside the plant area.

At least 20 man hours were required for decontamination and Health-Physics surveying, and several more hours will be required for painting. According to R. R. Coveyou's report on the first shipment (8/5/45) from Site M, dated

8/31/45, the trucks left the plant area after the first shipment was contaminated down to less than 5000 d/a alpha, and uncontaminated with beta and gamma. Thus, the trucks must have been contaminated at Site M. The fact that not only the truck beds, but also the drivers and cabs of the trucks were contaminated shows that there might have been a considerable amount of carelessness in preparing the shipment. We hope that in the future enough care is exercised so that the trucks and personnel will come here uncontaminated.

RAS/r

R. A. Simons